

REMARKS

The Office Action dated March 29, 2006, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-46 are currently pending in the application, of which claims 1 and 24 are independent claims. Claims 1-46 are respectfully submitted for consideration.

Rejections under 35 U.S.C. 112, second paragraph

Claims 1-2, 4, 6-9, 13, 16, 22-25, 27, 29-31, 36, and 39 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The Office Action indicated that claims 1-2, 4, 6-9, 13, 16, 22-25, 27, 29-31, 36, and 39 recite “obtaining a portion.” The Office Action took the position that the term “portion” was unclear from the context of the claim. Applicants respectfully disagree.

As explained at paragraph 0002 of the present specification, the passage of data through a network may be accomplished by an examination of at least a portion of the data. As illustrated in paragraph 0027 of the present specification, the packet header (or a portion thereof), may be a suitable portion of the data to obtain. One of ordinary skill in the art would read the claims in light of the specification, and thus understand what “obtaining a portion” entails. Accordingly, it is respectfully submitted that each of claims 1-2, 4, 6-9, 13, 16, 22-25, 27, 29-31, 36, and 39 is definite, and it is respectfully requested that this rejection be withdrawn.

The Office Action additionally took the position that the recitation of “a mask” in claims 1 and 24 rendered those claims indefinite. Applicants respectfully disagree. As explained extensively in the present specification, beginning at paragraph 0026, a mask can be used in certain embodiments of the present invention. As explained, for example, at paragraph 0028, an 8-bit mask set to 11111000 may be used so that the first five bits of a field’s values may be compared and the other three bits may be treated as identical or ignored. This is just one example and does not limit the invention. Nevertheless, it illustrates how a mask may, for example, be used in certain embodiments of the present invention. Accordingly, one of ordinary skill in the art would read the claims in light of the specification, and thus understand what “a mask” means in the claims. Therefore, it is respectfully requested that this rejection be withdrawn.

Rejections under 35 U.S.C. 102(b)

Claims 1-5, 19-28, and 42-46 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,154,775 of Coss et al. (“Coss”). Applicants respectfully traverse this rejection.

Claim 1, upon which claims 2-23 depend, is directed to a method of handling data packets in a network device. The method includes receiving an incoming data packet. The method also includes parsing the incoming data packet to obtain a portion of the incoming data packet. The method further includes comparing said portion with rules stored in a rule table, where each rule of said rules specifies a set of actions. The method

additionally includes selecting a match between said portion and a particular rule of said rules. The method also includes executing a particular set of actions specified by said particular rule. Each rule field of said rules includes a mask and a selection flag used in the comparing said portion with each rule.

Claim 24, upon which claims 25-46 depend, is directed to a network device for handling data packets. The device includes a rules table, means for receiving an incoming data packet, means for parsing the incoming data packet to obtain a portion of the incoming data packet, and means for comparing said portion with rules stored in said rule table, where each rule of said rules specifies a set of actions. The device also includes means for selecting a match between said portion and a particular rule of said rules and means for executing a particular set of actions specified by said particular rule. Each rule field of said rules includes a mask and a selection flag used by the means for comparing said portion with each rule.

Applicants respectfully submit that Coss does not disclose or suggest all of the elements of any of the presently pending claims.

Coss generally relates to a method and apparatus for computer network firewall with dynamic rule processing with the ability to dynamically alter the operations of rules. As explained at columns 5-7 of Coss, Coss employs what it terms “stateful” packet filtering. Stateful packet filtering stores the results of a rule applied to one or more packets in a cache. When a subsequent packet from the same session is received, Coss’ system use the previous results on the new packets. Coss indicates that such an approach

avoids the need to apply the rule set to each incoming packet. Efficient use of the cache in Coss is made possible by employing a hash table, or the like, to index the information stored in the cache. The information in the cache can include a “session key,” hardware address information, interface information, the number of the applicable rule, an alarm code, statistical information, and an applicable action. The session key includes a header item such as the Internet Protocol (IP) source address, IP destination address, next-level protocol, destination or source port, and the like.

Claims 1 and 24 each recite “wherein each rule field of said rules includes a mask and a selection flag used in the comparing said portion with each rule.” Coss does not disclose or suggest at least this feature of the claimed invention.

The Office Action cited column 5, lines 55-59 of Coss. However, that passage simply discusses the hash that Coss uses to index Coss’ cache, as explained above. A hash is not normally thought of as a “mask.” Accordingly, Applicants respectfully disagree with the Office Action’s analysis, and submit that Coss does not disclose or suggest at least “wherein each rule field of said rules includes a mask and a selection flag used in the comparing said portion with each rule.”

Claims 2-5, 19-23, 25-28, and 42-46 depend from claims 1 and 24 respectively and recite additional limitations. Therefore, it is respectfully submitted that each of claims 2-5, 19-23, 25-28, and 42-46 recites subject matter that is neither disclosed nor suggested in Coss. Thus, it is respectfully requested that the rejection of claims 1-5, 19-28, and 42-46 be withdrawn.


Conclusion

For the reasons explained above, it is respectfully submitted that each of claims 1-46 is definite and recites subject matter that is neither disclosed nor suggested in the cited reference. It is therefore respectfully requested that all of claims 1-46 be allowed and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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